REMARKS/ARGUMENTS

Applicants would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action.

The Examiner did not consider several references cited in an IDS dated December 14, 2005 because copies of the references had not been provided. Copies of JP 5-91955, JP 8-282358 and JP 2734832 and corresponding English abstracts are provided with this response. The Examiner is respectfully requested to consider these references.

Specification

The Examiner objected to the abstract of the disclosure. The abstract has been amended and is now one paragraph and does not include the term "means."

The Examiner objected to the specification and required a substitute specification. Various paragraphs of the specification have been amended where appropriate. However, a substitute specification has not been submitted. The specification is already in proper idiomatic English and would be understandable to one of ordinary skill in the art.

Claim Rejections – 35 USC § 112

Claims 16-26 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 16-26 have been canceled.

Claim Rejections – 35 USC § 103

Claims 16-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2985645 in view of Origno (US 5,902,255). Claims 16-26 have been canceled.

New claims 27-36 have been added.

Claim 27 requires a projection from the rigid base plate of a toilet seat case, and an elastic pressing means attached to an inner face of the rigid upper lid of the case so as to oppose the

projection. A piezoelectric vibration sensor is located between the opposing projection and pressing means. See, e.g., FIG. 11(a) and 11(b) of the present application. Such a toilet seat apparatus is not taught or otherwise rendered foreseeable by the cited references.

An object of the subject matter recited in claim 27 is to provide a toilet seat apparatus that can detect motion information and biologic information based on the body movement of the user. The upper lid 6 is made of rigid body, whereas the pressing means 27 is made of elastic member. Because the pressing means 27 is made of elastic member, an upper portion (vicinity of a portion thereof connected to the upper lid 6) of the pressing means 27 is vibrated similar to the upper lid 6, whereas a lower portion of the pressing means (vicinity of a portion thereof connected to the piezoelectric sensor 9) vibrates with delay. Namely, the lower portion of the pressing means vibrates different from the upper lid 6 due to the elasticity of the pressing means. The piezoelectric sensor 9 detects not only the vibration from the upper lid 6 (rigid body) but also the different vibration from the pressing means 27. Thus, the pressing means 27 works to amplify the vibration of the upper lid 6.

Further, the pressing means 27 and the projection 28 are opposed to each other and can have different shapes. The piezoelectric sensor 9 is provided with a portion which is not brought into contact with the pressing means 27 and a portion which is brought into contact with the pressing means 27. Further, in the portion brought into contact with the pressing means 27, there are present various portions having different states of being pressed from a portion which is strongly pressed to a portion which is not pressed so much.

Therefore, vibration differs by the portions such that the piezoelectric sensor 9 does not receive so much vibration at the portion which is not brought into contact with the pressing means 27 and the piezoelectric sensor 9 receives vibration strongly at the portion of being

strongly pressed by the pressing means 27. That a total of the piezoelectric sensor does not receive the same vibration but receives vibration which differs by the portions is equal to that the piezoelectric sensor 9 is partially deformed and therefore, the output of the piezoelectric sensor can be increased. As a result, since the piezoelectric sensor 9 can be deformed from vibration of the rigid body which is hardly deformed, vibration of the rigid body is amplified. The difference of the shapes of the faces of the pressing means 27 and the piezoelectric sensor 9 opposed to each other can be regarded as a kind of amplifying means.

As mentioned above, the pressing means and the projection are opposed each other in the toilet seat case including the lid and base plate made of rigid member, and the cord-like piezoelectric sensor is located between the projection and the pressing member. The amplifying effect is attained. Thus, a toilet seat apparatus that can detect motion information and biologic information based on the body movement of user is realized. The cited references fail to show such apparatus.

JP 2985645 teaches an amplifying means 2 for use with a piezoelectric element 1, the amplifying means 2 having "heights" 13 for transmitting vibration to the piezoelectric element (see paragraph [0012]). Origno teaches a piezoelectric element disposed on a toilet seat (3:15-16). However, for the reasons discussed above, the cited combination of references fails to teach the subject matter recited in claims 27-36.

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. NGB-39208.

Respectfully submitted,
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